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ABSTRACT

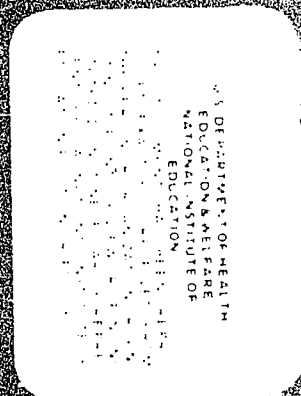
The planning of facilities for early childhood education should be a part of a larger, comprehensive plan for educational services in the community. Early childhood education should not be an uncoordinated appendage tacked on to the existing patterns of education in organization, programing, or staffing. A number of diverse persons and agencies can help in developing the program for early childhood educational services -- teachers, administrators, principals, parents, specialists in early childhood education, representatives of State educational services and institutions of higher learning, and other consultants. Parents should be involved when the program for early childhood education is being developed and formed, or even participate in the early stages of the processes for planning the facilities for early childhood centers. The basic nature and characteristics of young children constitute the prime criteria in planning facilities for early childhood education. The purpose and goal of this publication is to guide and stimulate school officials, architects, and engineers in providing and planning new or renovated facilities which are appropriate for early childhood education. (Photographs may reproduce poorly.) (Author)

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**SCHOOL PLANNING GUIDE SERIES / 5**

North Carolina Department of Public Instruction / Division of School Planning / Raleigh, N.C.



## FOREWORD

As the State of North Carolina enters the era of public kindergartens supported in part with funds from the State's treasury, it is important to the young children that the teachers and the facilities—grounds, buildings and equipment—be of the highest quality obtainable.

Early childhood development and education encompasses the age group from birth to about eight years; kindergarten is a somewhat arbitrary segment of this group—those between five and six years in chronological age. Since children mature at varying rates, it is not reasonable to expect consistent similarities among children of the same age. Kindergarten accepts each child as he is, in whatever stage of development, regardless of chronological age.

Good facilities for early childhood provide an appropriate environment for young growing and developing children to live in and to learn in, under the care, stimulation, leadership and guidance of highly competent, educated and well-trained teachers and assisting personnel who are encouraged and supported by energetic and concerned educational leaders.



A. CRAIG PHILLIPS  
State Superintendent of Public Instruction



School Planning Guide Series—#5  
NORTH CAROLINA DEPARTMENT OF PUBLIC INSTRUCTION  
March 1970  
Division of School Planning





## PREFACE

As North Carolina prepares to expand the public school system to include programs for children five years of age, it is essential that an adequate and stimulating environment be provided. During the past year Marvin R.A. Johnson, consulting architect, Division of School Planning, has traveled extensively to observe some of the best early childhood centers in the country. He and others have reviewed a wide range of materials on the subject. His studies and efforts have made it possible for the Department to prepare this attractive guide for the use of those who will be planning facilities for the younger children in the years ahead.

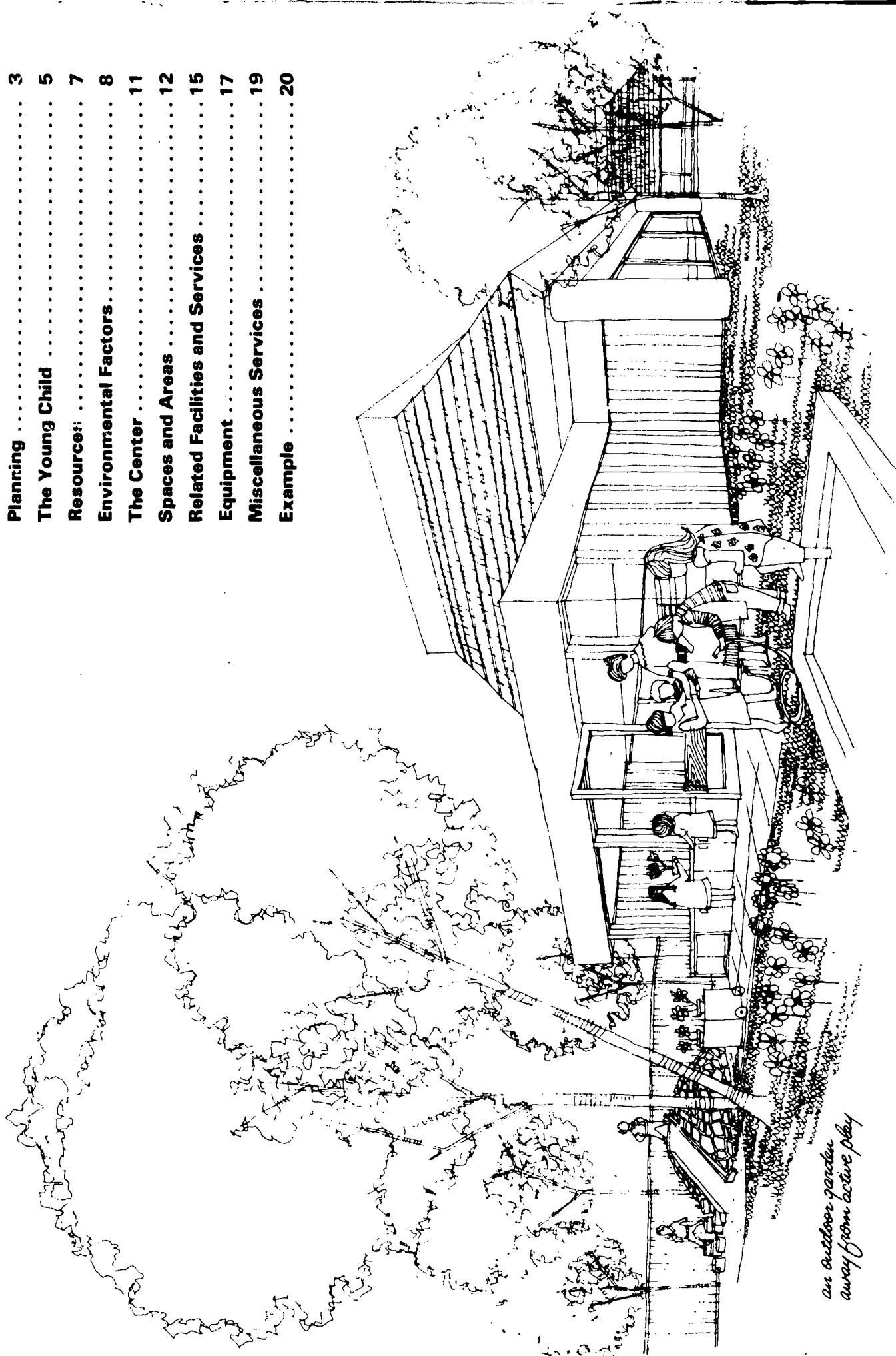
It is hoped that the thousands of young children who will be attending the early childhood centers of the future will benefit from his efforts and the efforts of the other persons who made a contribution to this publication. Appreciation is expressed for the valuable assistance of Mrs. Patricia Bowers, artist, and Mr. Robert Ham, draftsman, who assisted with the graphic arrangement.

*J. L. Pierce*

J. L. PIERCE  
Director Division of School Plan

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The purpose and goal of this publication is to guide and stimulate school officials, architects and engineers in providing and planning new or renovated facilities which are appropriate for early childhood education.

The planning of facilities for early childhood education should be part of a larger, comprehensive plan for educational services in the community. Early childhood education should not be an uncoordinated appendage tacked on to the existing patterns of education in organization, programming, or staffing.

A number of diverse persons and agencies can help in developing the program for early childhood educational services, including teachers, administrators, principals, parents, specialists in early childhood education, representatives of state educational services and institutions of higher learning, and other consultants.

Parents should be involved when the program for early childhood education is being developed and formed. They may even participate in the early stages of the processes for planning the facilities for early childhood centers.

The basic nature and characteristics of young children constitute the prime criteria in planning facilities for early childhood education.





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Sketches on pages 10, 16, 18, 20 by Robert Ham, Draftsman, Division of School Planning.

Photographs by Charles Wright, Photographer, N.C. Department of Public Instruction.

The statements quoted in this publication are selected from interviews with the following teachers and administrators and are used with their permission.

**Theresa Dowd, kindergarten teacher, Warren Public School, W'ellesley, Massachusetts. E.J. McDermott, Principal, Scotchtown Avenue School, Goshen, New York. Mrs. Grace Trueman, Kindergarten Grade Chairman, Scotchtown Avenue School, Goshen, New York.**

*"I think that by respecting the nature of children, we realize that children do not change just because the calendar changes, or because a child moves from one room to another, each teacher who receives a child from kindergarten needs to see the continuity of growing up, the continuity of the learning*

*process, and does not feel that there are some kind of set boundaries or a set place where a child must learn to read or must learn that one and one make two. I think programs should be designed for the child and his pace of learning."*

*-Theresa Dowd*

*"...I think it's foolish not to realize that young children have a wide range of interests and abilities themselves. There are some 3-year-olds who perform as 5-year-olds; there are some 5-year-olds who perform as 3-year-olds."*

*-Grace Trueman*

*"In my years of teaching, I come each year to feel more strongly that 5-year-olds learn most through what is very natural and normal for 5-year-olds, and that is their play experience. Therefore, in my kindergarten and in all of the Goshen kindergartens, we have the kind of programs where children have freedom to move about from activity to activity. Our activities are planned to help children develop concepts, to develop ideas, and also to accommodate the variety of ages that you would find in a kindergarten, both emotionally and chronologically apt to provide for the children who are ready for additional experiences that would enlarge their world."*

*-Grace Trueman*

*"One of the things that I feel strongly about is that learning does not take place only through*

*sight and sound. It takes place, especially for the young children, through all the senses."*

*-E.J. McDermott*

*"I think that children need a long time to use their many senses; most of the time when people talk about abstract learning, they speak as if feeling, touching were not a part of abstraction—they think in terms of pencil and paper whereas I think a total person can learn abstract thinking by experimenting, by trying out, by making a lot of mistakes and not being afraid to go try it again."*

*-Theresa Dowd*

*"Another thing that is very important to me is to give the child opportunities to observe things, visit places and have adults really listen when children have something to say. Many chances for sensorimotor experiences should be available."*

*-E.J. McDermott*

*"For me, not work books, not a lot of paper stuff, but the kinds of materials that a child can move around to find how much, how little, how big, how strong, how you put things together, the size and shape of things, the discovery of the meaning of words through his own language and a readiness on the teacher's part to put down this thought—what he knows, what he says—is something that can be translated into symbols."*

*-Theresa Dowd*



*"There is a great joy in literature, music; all the liberal arts. I think, are the measurements of good kindergarten programs. If the teacher herself has this in her, she can share it with the children."*

*-Theresa Dowd*

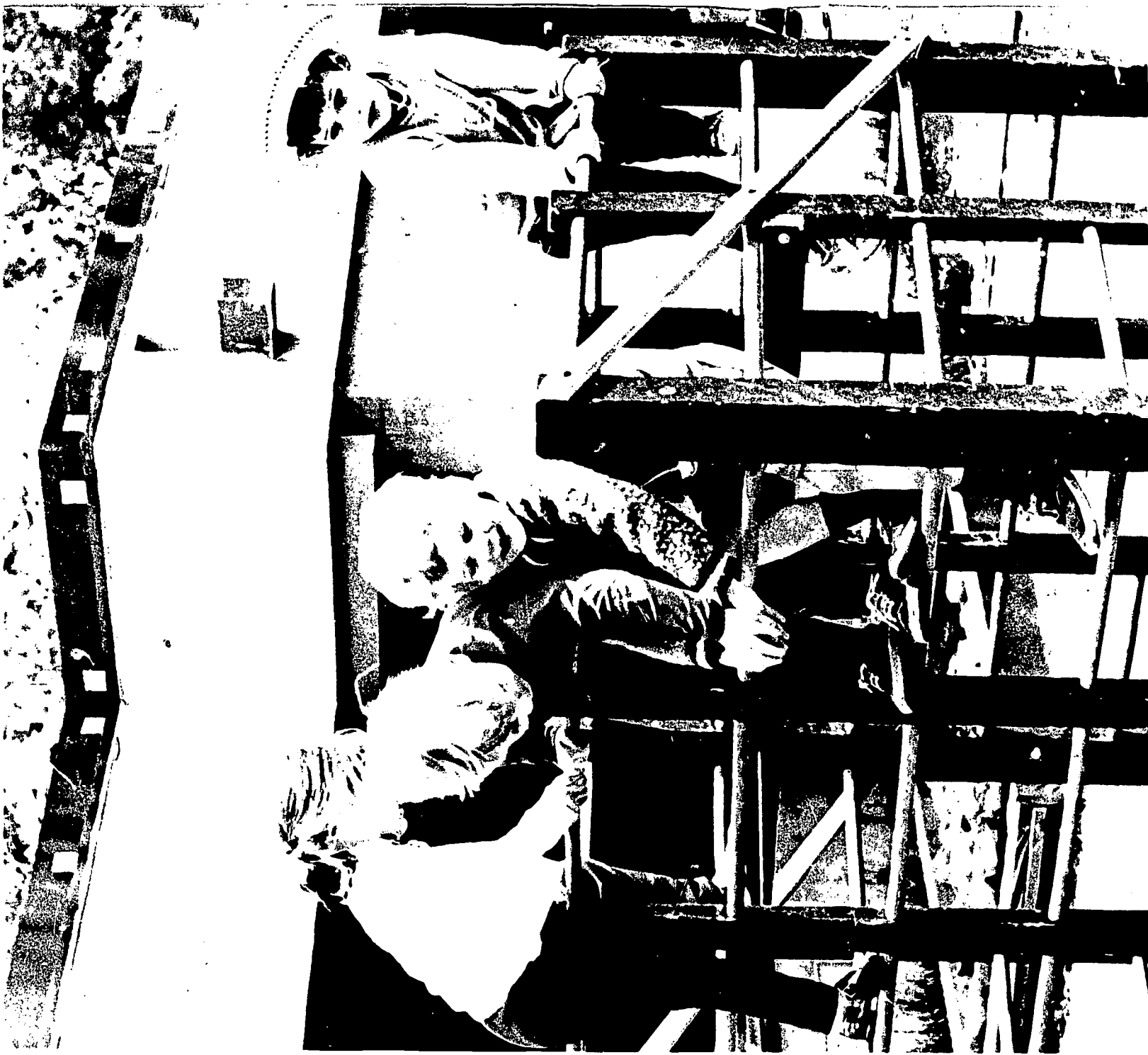
*"I feel as a principal, and I think I felt this also as a teacher, that the more we know about the child, the more we know about the child's home, and the more the child's parents know about our school, the more we can do for individual children."*

*-E.J. McDermott*

*"We encourage parents to come in and visit us during the year, and they do this. They may come at any time; we ask them to let us know in advance so we don't have too many mothers on any one day. They have a very comfortable feeling about the classroom that they may visit as if they're a part of it. I can't be a child's teacher without understanding the part of the parent, too. We're really a team working together."*

*"Consequently, we have the most wonderful cooperation from parents because they really know what we're trying to do and we really know what their expectations and hopes are for their children."*

*-Grace Trueman*



## **STAFF**

- Highly competent, well-educated, well-trained, acceptably experienced teachers and assisting personnel
- Where appropriate and available, adequate additional resource personnel
- Services of competent persons in the fields of physical and mental health and social rehabilitation

## **LEADERSHIP**

- School boards and administrative leaders who have a concern for and a knowledge of the significance and importance of early childhood education
- School principals who accept early childhood educational programs and services as an integral part of the school

## **FINANCE**

- Adequate funds distributed equitably to early childhood programs as well as to other services and programs of the school

## **COMMUNITY-RELATED PROGRAM**

- Although based at the early childhood education center or school, utilizes many resources in the community such as parks, cultural facilities, commercial and industrial enterprises, libraries, community service agencies, health and social services
- Appropriately related to home and family in order to coordinate the attitudes and experience of home and school and to improve the understandings of child development by the parents

## 8 EARLY CHILDHOOD EDUCATION



*The environmental factors of man's physical surroundings relate to the human senses, and affect the comfort and the effectiveness of the human organism.*

### **Thermal**

- Comfortable for children
- Temperature somewhat variable, not constant, within acceptable range of 68 to 75 degrees indoors
- Cooled as well as heated, unless natural conditions of climate make this unnecessary
- Provision for humidity control

### **Visual**

- Something to see out-of-doors through windows and doors that open; most window sills two feet or less from floor
- Lighting which ranges from bright sunlight to darkness through combinations of natural plus artificial illumination, with possibilities for a wide variety of intensity and of mood, possibly with dimmer switches
- Lighting adequate for close tasks
- In addition to ceiling illumination, possibilities of wall-type and floor-type lighting fixtures
- Careful but bold use of color in building, finishes and equipment

### **Acoustical**

- Comfortable to allow for natural noises of busy children
- Some soft floor surfaces to prevent generating unwanted sounds
- Acoustical treatment on walls or ceilings if needed to provide acoustical comfort
- Possibility of several spaces to allow for some separation of conflicting sounds

### **Tactile**

- Variety of textures in surfaces, finishes, furnishings and equipment

### **Spatial**

- Varied areas, ranging from free open air of the out-of-doors to enclosed, private, cozy, indoor space
- Variation in ceiling height and in floor levels; some spaces tall, some low, some narrow, some wide



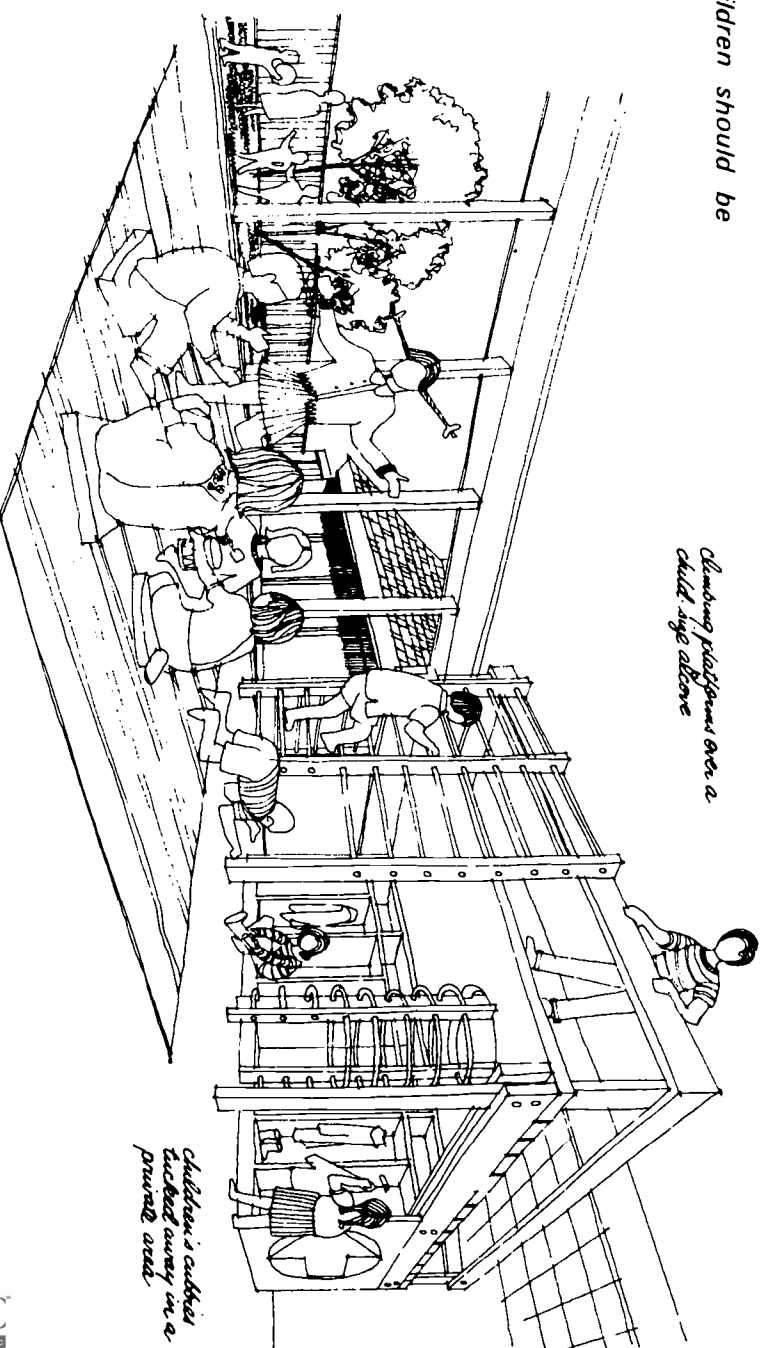
**Sanitation**

- Agreeably sanitary without antiseptic institutional quality
- Provided with adequate and safe water supply and waste disposal systems which exceed minimum requirements of state and local authorities
- Equipped with appropriate fixtures for waste disposal and cleanliness
- Meeting local sanitation inspection standards

**Safety**

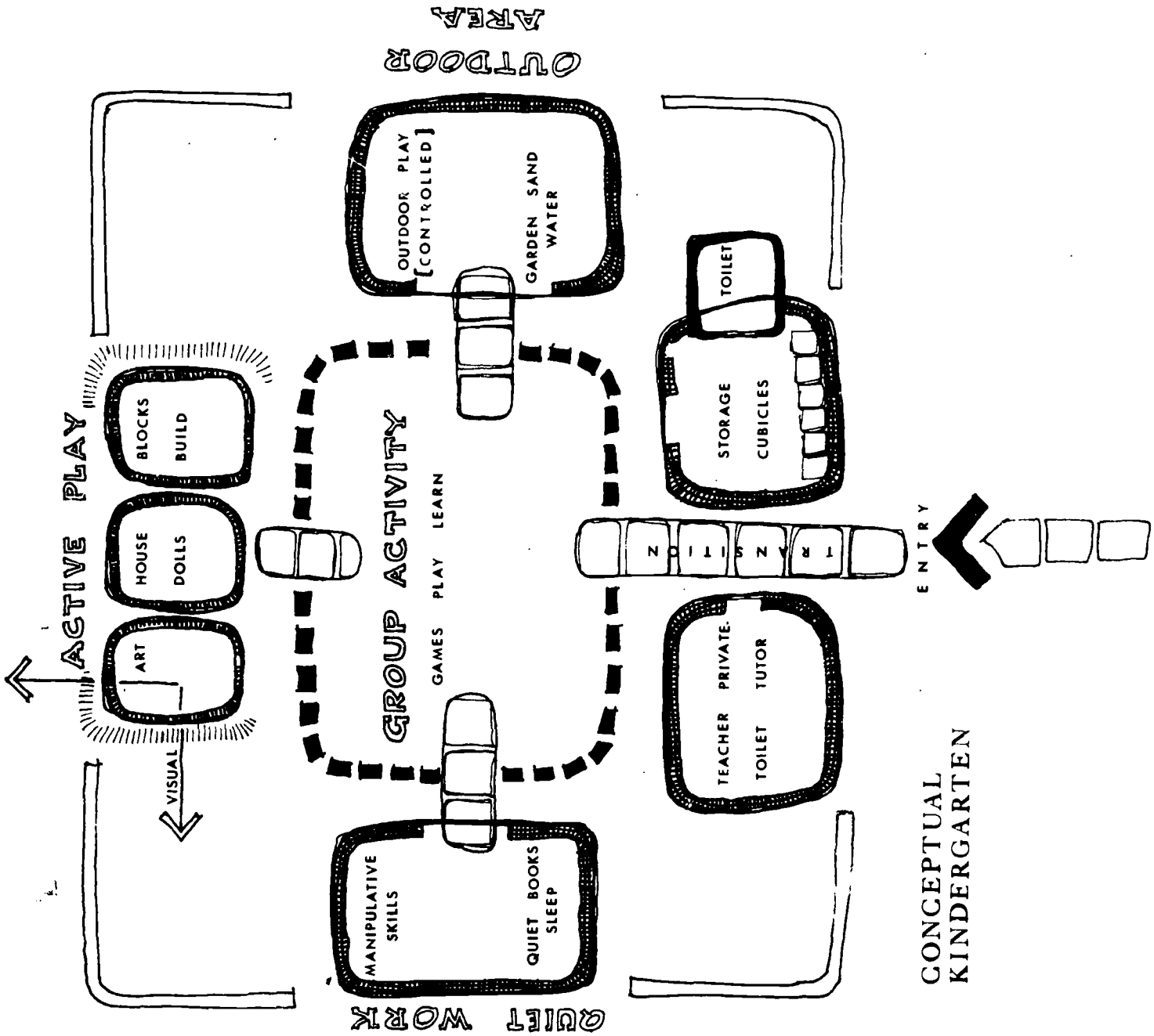
- Free of avoidable hazards
- Provided with adequate exits
- Meets the spirit as well as the letter of State and local building codes
- Possible hazards from motor vehicles reduced to a minimum
- Outdoor equipment and structures of sturdy materials
- Outdoor surfaces of materials which minimize causes of abrasions, cuts, etc., and which are well tended and well maintained

*It is essential that facilities for children should be thoroughly safe and sanitary.*



*Climbing platforms over a child size alcove*

*Children's cubicles tucked away in a private area*



This is a diagram, not a plan; it shows possible relationships between the various activities and the areas primarily set aside for these activities. Out of such a diagram prepared for a specific situation might come the basic idea for a building plan.

The term "facilities" includes site and grounds, buildings and equipment.

*Five-year-old children are "pliant"; they can adapt themselves to a great variety of physical circumstances and environmental situations. This characteristic of young children must not be exploited, nor be used as an excuse for merely sheltering them in dull, depressing, crowded, inadequate or plain bland surroundings and buildings.*

## LOCATION

- In an elementary or union school, or in a separate center for early childhood education and development for children of ages 5 through 8
- Reasonably close and convenient to the homes of the pupils, eliminating the need for long travel time in automobile or bus

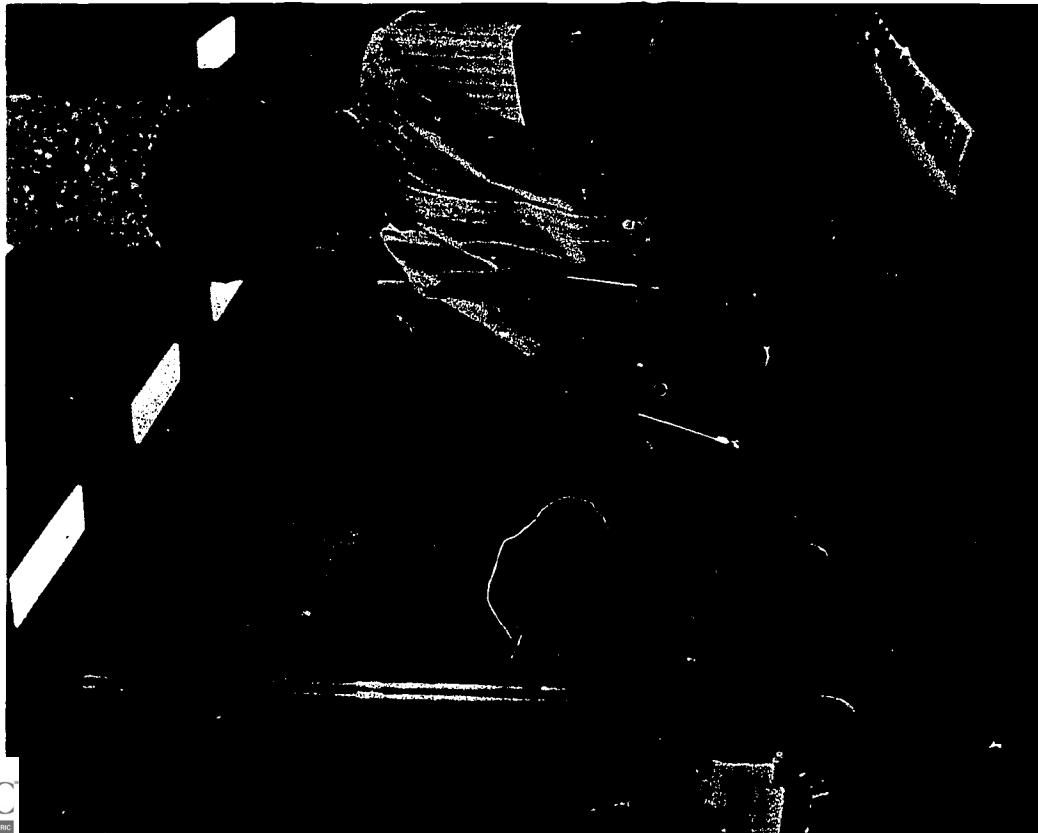
## TRAFFIC

- For walking children, walkways do not cross driveways on school site
- Driveways and parking areas removed and separated by barriers from children's play and activity areas
- A safe waiting area, covered where feasible, for children awaiting transportation at end of school day

## CHARACTERISTICS

- Many opportunities for each child to do many things, some of which the home environment does not provide or allow
- Situations which increase a child's awareness of all there is to be done and enjoyed
- A great and rich variety of tools, devices, materials and instruments to provide each child the opportunities to try many activities
- Stimuli for *all* the senses
- Site with varied topography and plant life
- Partly wild and natural—plants and animals; partly precise and man-made—glass, metal, ceramics
- Accepting child-like clutter, yet also providing pure and ascetic space for those who are easily distracted
- Not bland or dull, but with character and personality
- Versatile and adaptable to change without losing identity
- With built-in variety: rugged for active play, yet also quiet and elegant for rest and gentleness
- Permissive, not inhibiting
- Well-proportioned and appropriately scaled to the child
- Of good quality, not cheap or shoddy





Facilities for early childhood education and development require both indoor and outdoor space which is continuous: indoors and outdoors are closely related, connected to each other by wide doors and windows.

## INDOOR

### Area

- Approximately 1,500 square feet for 20 to 24 students

### Activity Centers

Arts: adjacent to work sink, with counter provided with convenient storage for art materials and supplies located near outside window

Water: special deep sink or basin near other work sink

Media: in secluded area

furnished with table and four to six chairs and appropriate shelving with display for books and other media

Other: centers for science, mathematics, music, temporary displays

### Surfaces

- Some floor area impervious and easily cleaned especially at work sinks and art center
- Some floor area soft and resilient, such as cushioned tile or carpet
- Walls with surfaces for display
- Walls of several materials and textures

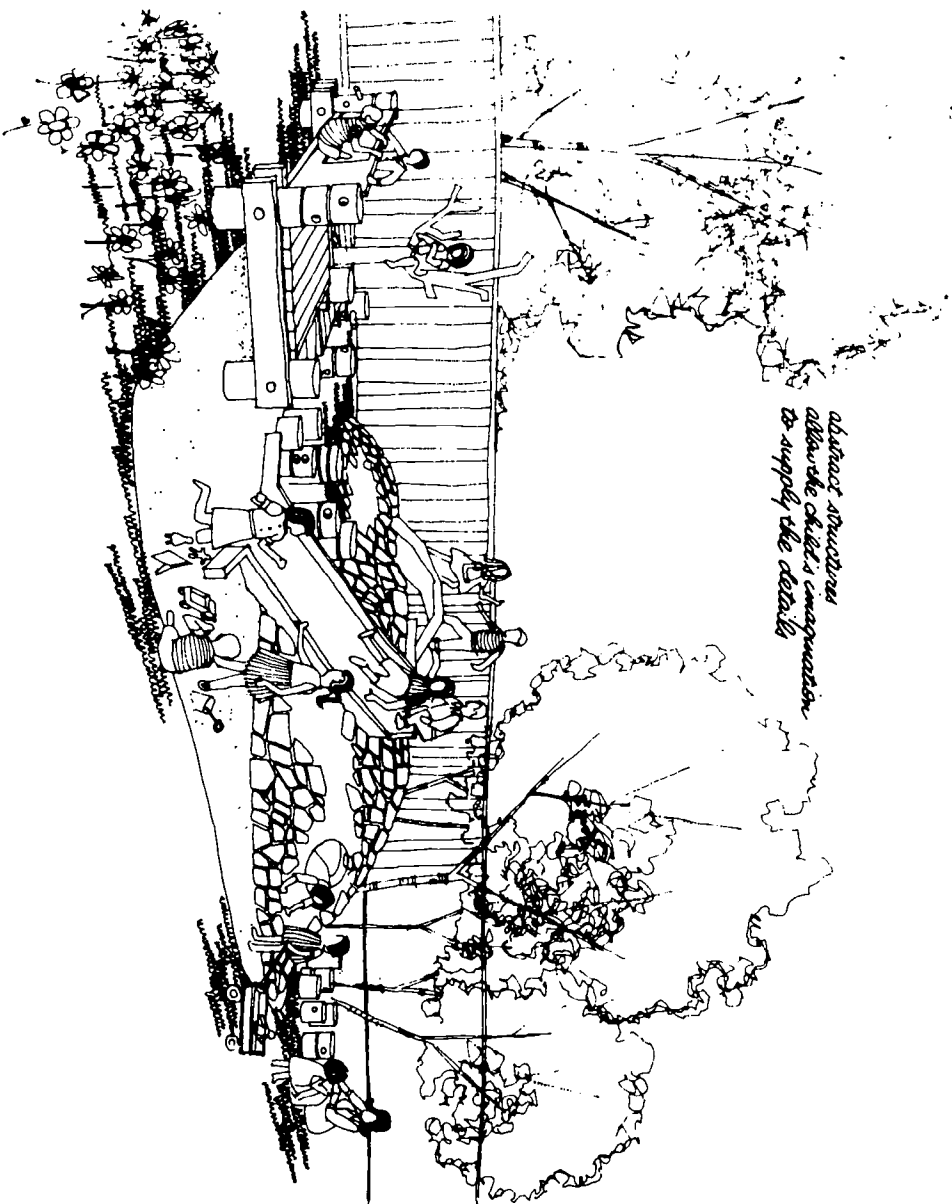
### Plumbing

- Work sink(s) with cold and warm water
- Drinking fountain at convenient height entirely separate from work sinks
- Toilet rooms are part of early childhood rooms; include water closet and lavatory, one fixture of each type for every ten children; accommodations for boys and for girls may be provided separately

### Entry

- Reasonably direct access to toilets from out-of-doors

Outdoor area for the exclusive use of children in early childhood center is separated from playgrounds of older children by means of shrubbery or well-designed fence.



## **OUTDOOR**

### **Area**

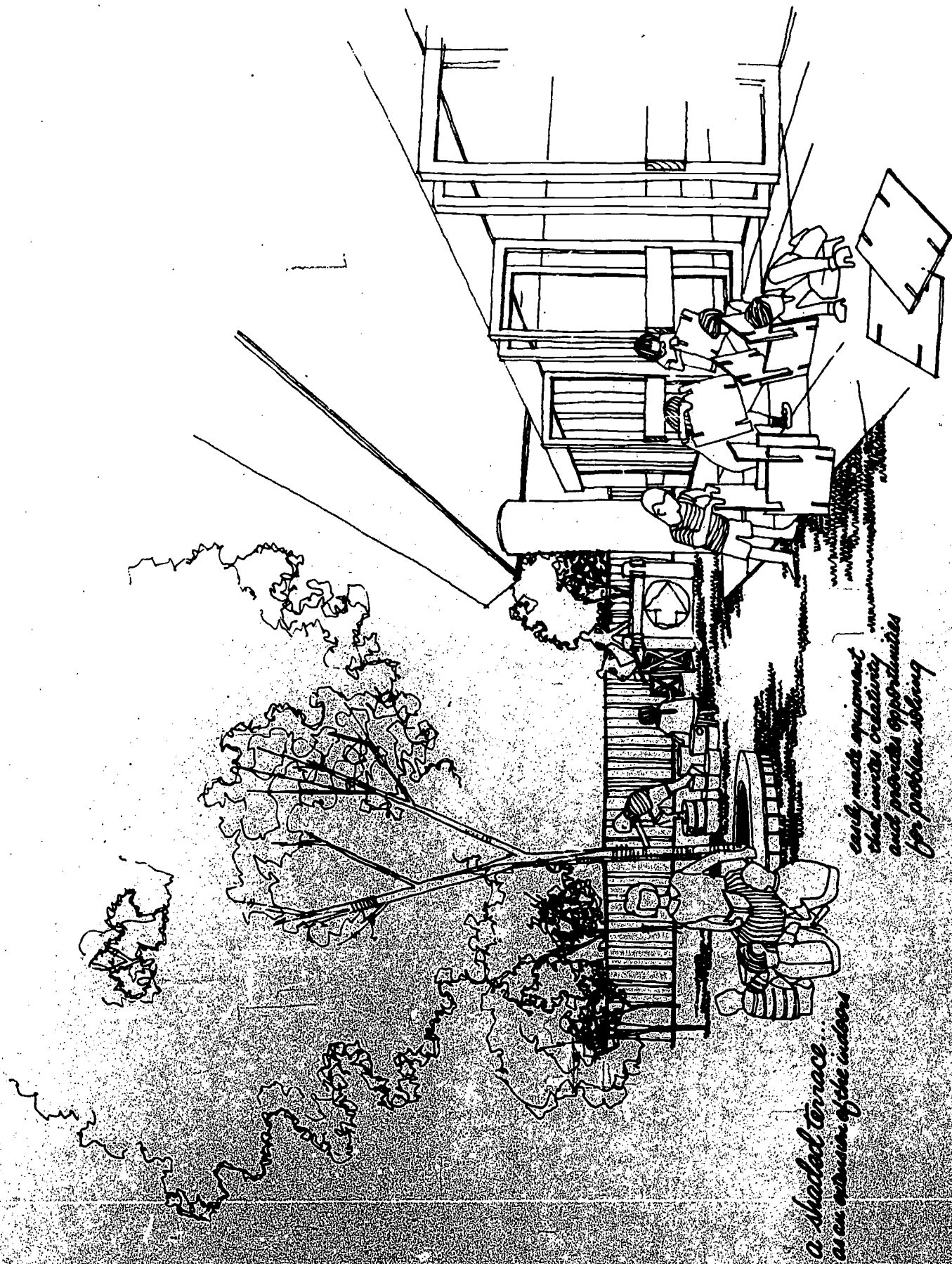
- Approximately 15,000 square feet or more recommended to accommodate up to 3 classes; smaller spaces acceptable if they are well-planned

### **Surfaces:**

- Sod or turf for large portion of area
- Uneven and irregular topography desirable for part of grounds
- Suitably surfaced place for games and small vehicles
- Various textures, such as gravel, sand, pine needles, grass, concrete, asphalt, brick, earth

### **Features**

- Variety of plant life: trees, shrubs, grass, weeds, flowers
- Portion of outdoor area closely related to indoor area
- Large "sculpture" pieces for interest and for climbing
- Climbing and other large muscle exercise apparatus
- Sturdy and durable benches and tables
- Outdoor weatherproof electric outlets
- Outdoor frost-proof water hydrant
- Storage room directly accessible from outdoors, lockable, with space for large items such as wagons, tricycles, large blocks, and other bulky items; wide door for easy access
- Portion of outdoor paved area covered by roof or canopy
- Sandbox, capable of being covered
- Toilet rooms readily accessible from outdoors



*a shaded terrace  
as an extension of the indoors*

*early made equipment  
that invites creativity  
and provides opportunities  
for problem solving*



The location of the early childhood education center determines in part the nature and extent of related accommodations for staff, parents, and special services for the children.

Where early childhood education is located in a larger school, some of the facilities and services of the school will be available. In the facility which houses only a center for early childhood education, special rooms and equipment will be needed.

*"In addition to the regular program and kindergarten, we have a hot lunch program for the children; steam carts are brought to the rooms rather than taking the children to the cafeteria. We feel that if they are in their rooms, there are many learning experiences that can take place."*

*-Ed McDermott*

## TEACHERS & STAFF

- Office space for teacher(s), for records and for small conferences
- Conference room for 8 to 10 persons; this room may also be available for temporary isolation or separation of an individual child
- Toilet rooms for adults—teachers and visitors—with water closet and lavatory

## HEALTH & GUIDANCE

- Health room for health inspections, for temporary separation of sick child; located adjacent to office for ease of supervision; used also for visiting personnel who provide psychological, psychiatric, or guidance services; contains lavatory
- Toilet room adjacent
- Shower and bath tub nearby

## FOOD SERVICES

- Access to food service facilities where early childhood education is accommodated in a larger school
- Provision of minimum food services determined by daily schedule; hot lunch accommodations if children remain during noon hour
- Provision for snacks at all early childhood education centers; refrigerator and electric hot plate are minimum requirements

## PHYSICAL EDUCATION

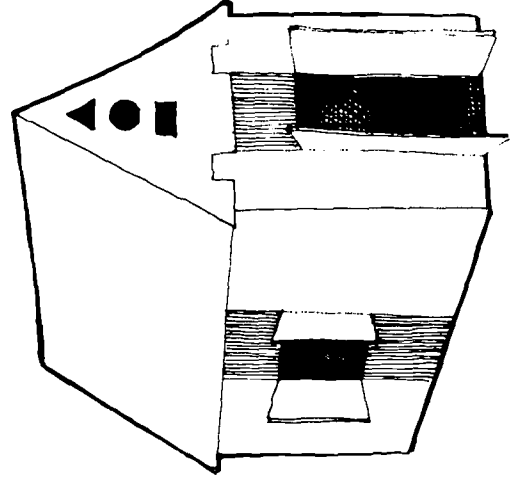
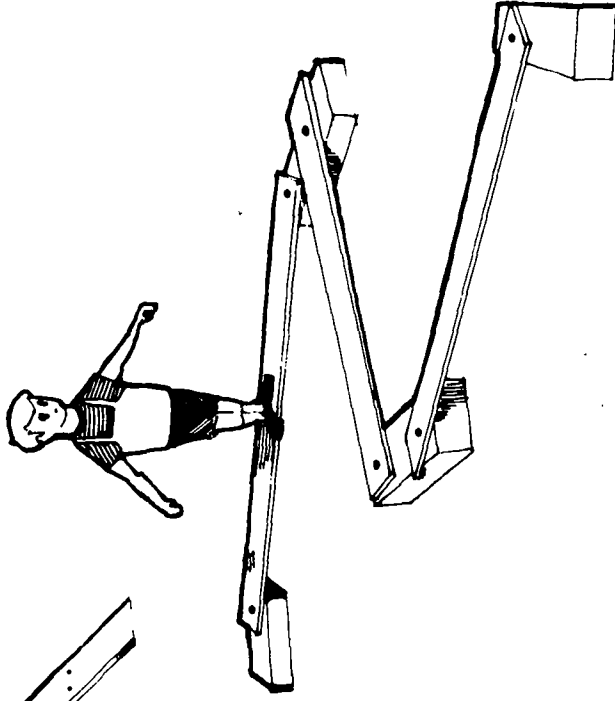
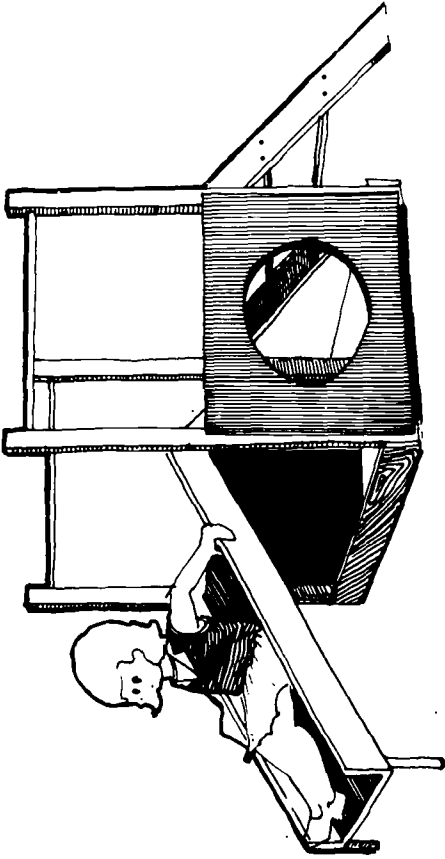
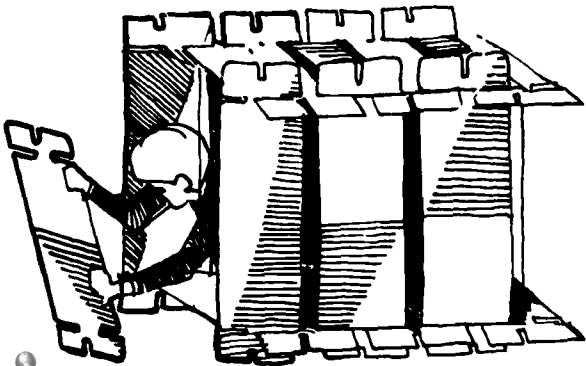
- Access to indoor physical education facilities if located in a larger school

## REST AREA

- Especially for full-day programs, space and equipment to permit children to recline for rest period; to save floor space, this may be on two levels

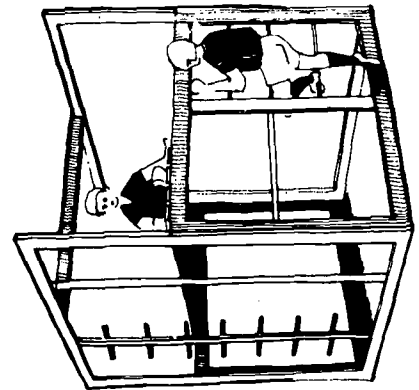
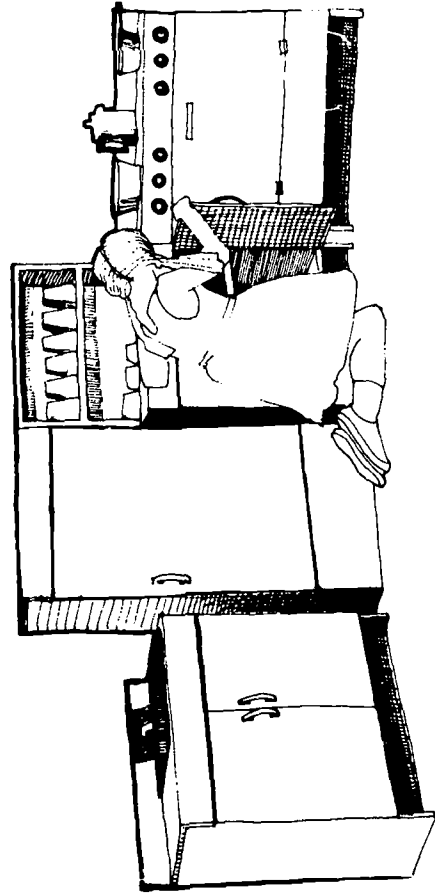
## BUILDING OPERATION

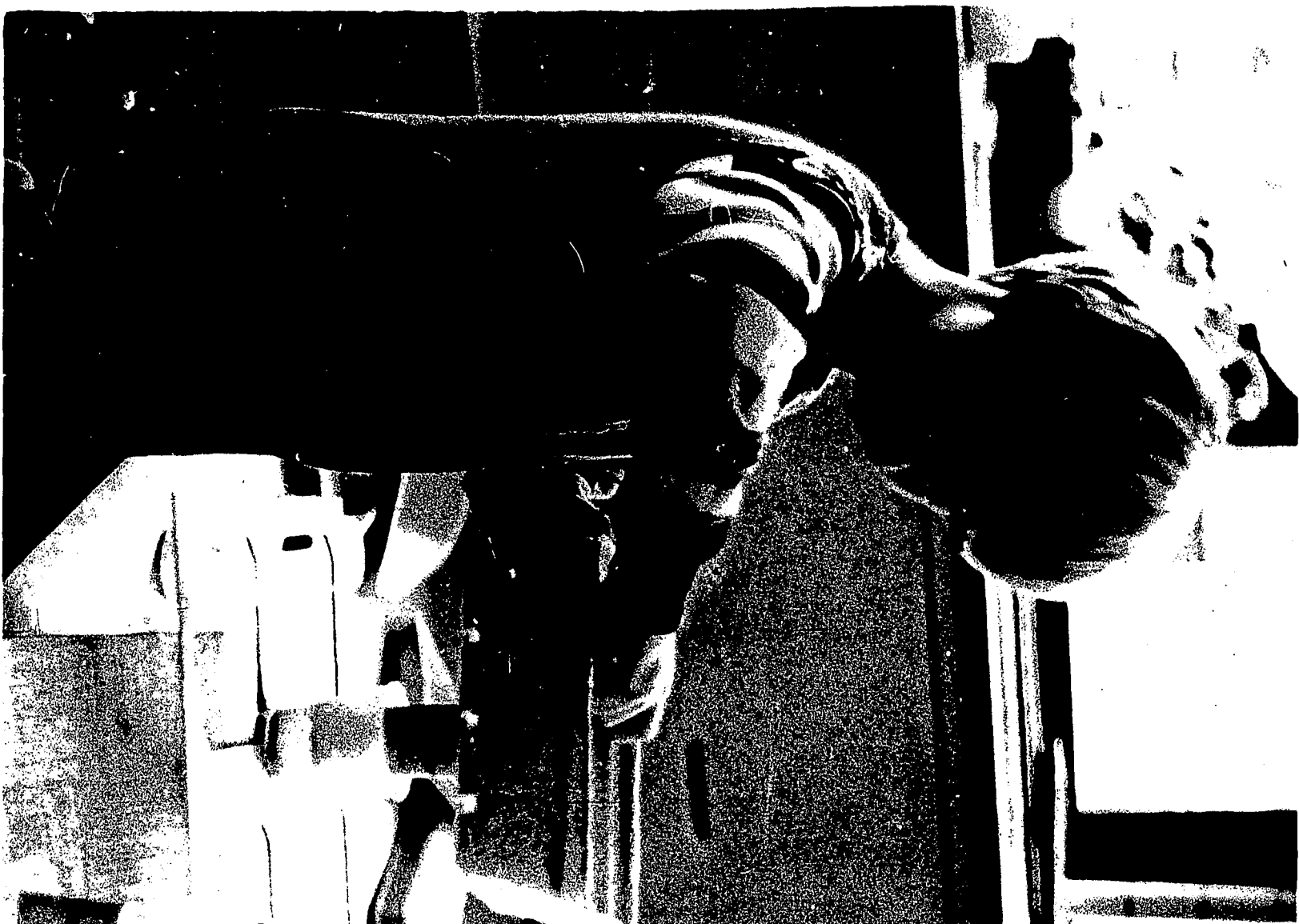
- Room with service sink or receptor with water, plus storage for equipment and supplies for custodian



A great variety of activities, accompanied by the child's freedom to choose among them, calls for a wide selection of things and objects with which the child can test and prove himself, and by which he can develop independence and self-reliance.

In a center for early childhood education, much of the equipment can be moved, manipulated, changed, and transformed by the child, allowing him to form, affect and create his own physical environment.





### **TABLES**

- Flat-topped, some accommodating two, others three or more children
- Of various sizes and shapes
- Sturdy, yet easily movable

### **CHAIRS**

- Well-designed
- Of appropriate height
- Sturdy, yet easily movable
- Some to accommodate two or more children
- Several for adults

### **CHALKBOARD**

- Approximately ten lineal feet, some of which may extend to top of baseboard

### **DISPLAY AREAS**

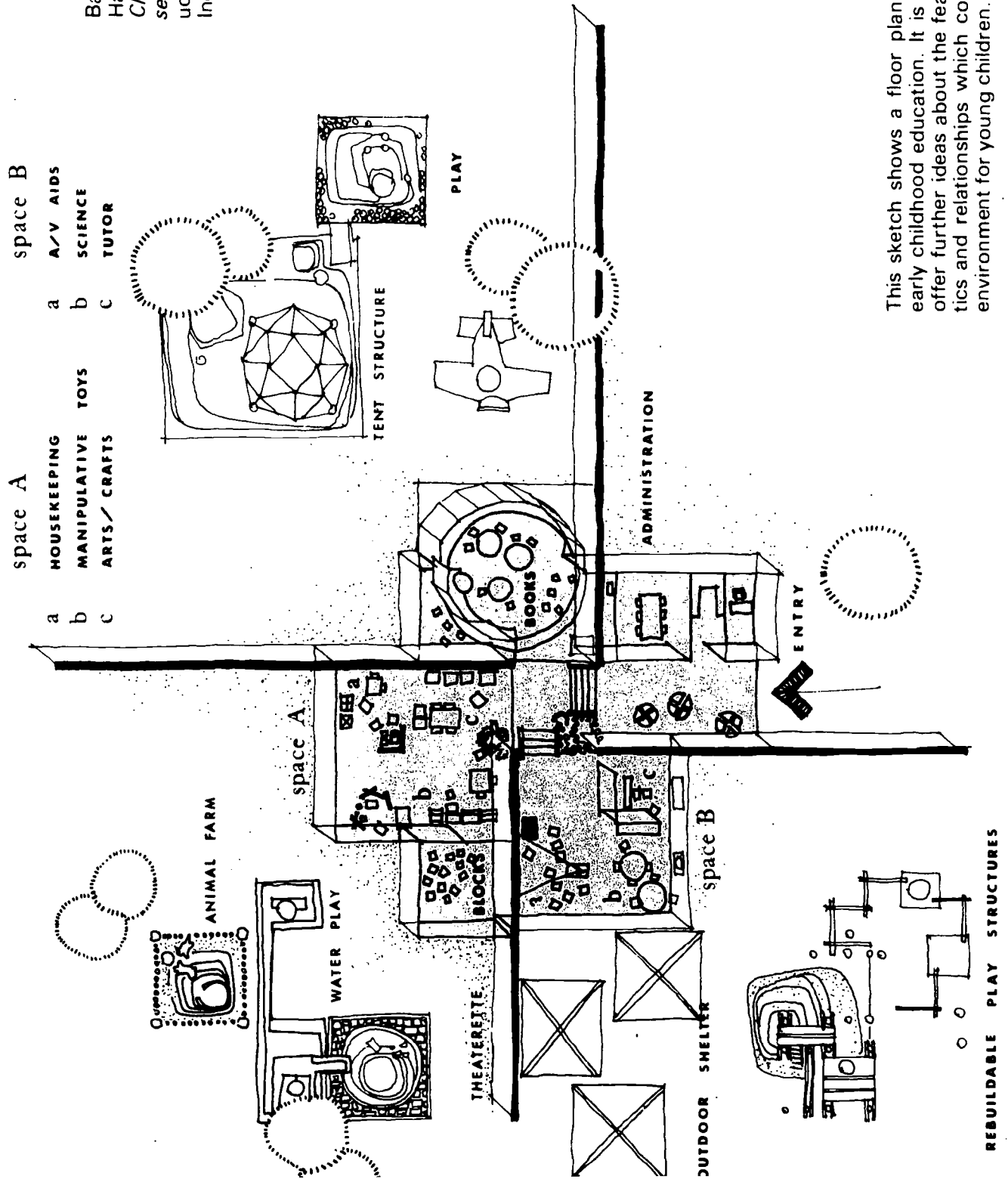
- Wall material or special surfaces on much of the available wall area to allow for display of flat and of three dimensional exhibit
- Supplementary display rails at several heights above floor
- Hooks or rings in ceiling for hanging displays

### **CASEWORK**

- Abundance of cabinets, shelving and storage compartments:
  - Flat plan file for storage of paper, at least 24" x 36"
  - Shelving for books and other media
  - Shelving for small blocks, toys, art supplies, collections
  - Cabinets with adjustable shelves for storage of instructional devices such as projectors, recording discs and tapes, players, recorders, microscopes, small musical instruments
  - Tops and backs of shelf units and cabinets to be used for displays and exhibits
  - Vertical open-front cubicle with shelf and hooks for personal items and clothing of pupils; one unit for each student



# 1 EARLY CHILDHOOD EDUCATION



Based on an idea by Ronald Haase, AIA, for *Educational Change and Architectural Consequences*, a publication by Education Facilities Laboratories, Inc.

This sketch shows a floor plan for a hypothetical center for early childhood education. It is included in this publication to offer further ideas about the features and special characteristics and relationships which could be useful in the prepared environment for young children.

### ELECTRIC & ELECTRONIC

- Services, circuits and wiring, for the convenient use of electrical devices, indoor and outdoor, including reception and input for television
- Provision for computer terminal
- Intercommunication with other parts of school if early childhood center is part of a larger school
- Telephone service to outside
- Emergency alarm

### TRANSPORTATION

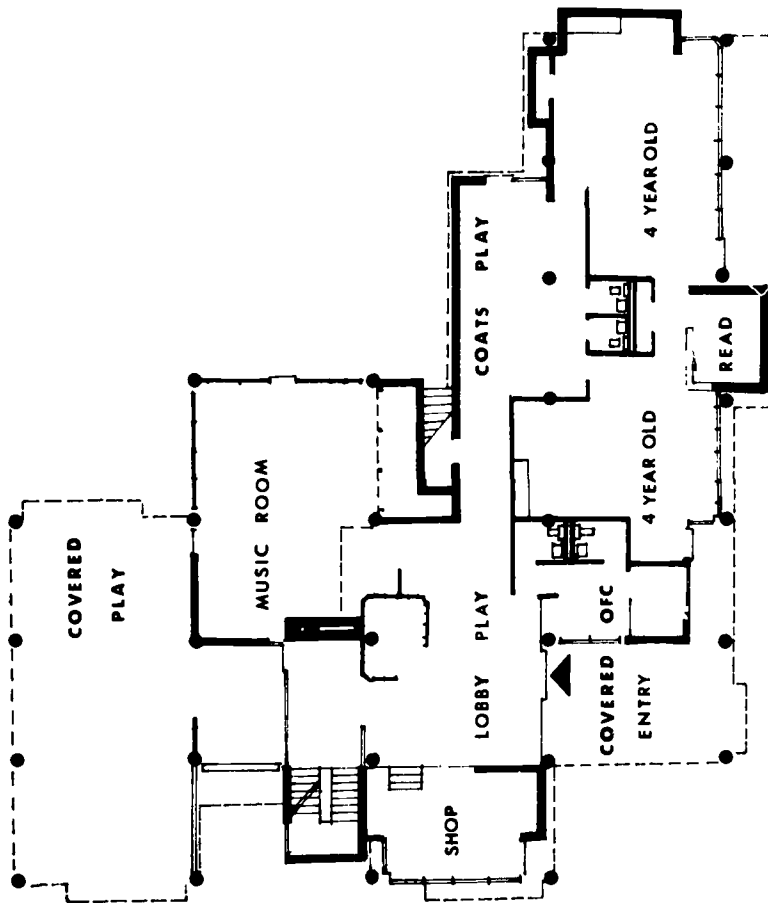
- Where school transportation is provided, special attention to comfortable and safe seating for small children
- In large schools, special entrance to building for children in early childhood education

*The familiarity of most children with modern communication devices such as audiovisual and television, and the usefulness of these for child development programs, demand that these media be accommodated.*

*"We don't have a separate bus transportation system, but I would like to have them bussed separately if possible."*

-Ed McDer

## EARLY CHILDHOOD EDUCATION



This school accommodates children 4 to 6 years old. It has two floors because it is located on a small site. The variety of interesting architectural spaces provide a superior environment which is not limited to the customary plain rectangular boxes as classrooms which are so common in conventional school design.

Buckingham Lower School, Cambridge, Massachusetts  
 Ashley, Myer & Associates, Inc., Architects

